

OIL IN THE CROSSHAIRS



- → The frequency of attacks on oil assets has recently increased
- → Status of market "cushions" largely determines oil price reactions
- → Government and industry must partner to strengthen defenses





February 1942

German subs sink 24 Allied oil tankers, attacks on Aruba & Curacao refineries August 1943

Allied aircraft attack Axis refineries in Romania



July 1950

American and British aircraft bomb oil refinery and storage tanks in Wonsan, N Korea



US bombs oil storage facilities in Hanoi and Haiphong





September 1980

Iraqi oil assets bombed as Iran-Iraq War begins

July 1987

Iran attacks Kuwaiti oil tankers; US escorts reflagged tankers



January 1991

Saddam burns Kuwaiti oil wells during First Gulf War

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More Recently: A Pattern of Proliferation

June 2018

Libya's Ras Lanouf and Es Sidr oil ports attacked September 2018

Gunmen attack Libya's NOC

May 2019

Four oil tankers attacked near Fujairah

June 2019

Two oil tankers attacked in Gulf of Oma

Oma



September 2019

Drone/missile attacks on Aramco's Abqaiq facility & Khurais field



January – September 2020

Libyan civil war keeps oil production offline March 2021

Aramco's Ras Tanura terminal attacked



April 2021

Aramco facilities in Jizan attacked

May 2021

Ransomware attack on Colonial Pipeline, Israeli oil and gas facilities attacked





Oil In The Crosshairs

The Oil Market's "Shock Absorbers" for Smoothing Supply Disruptions



INVENTORIES

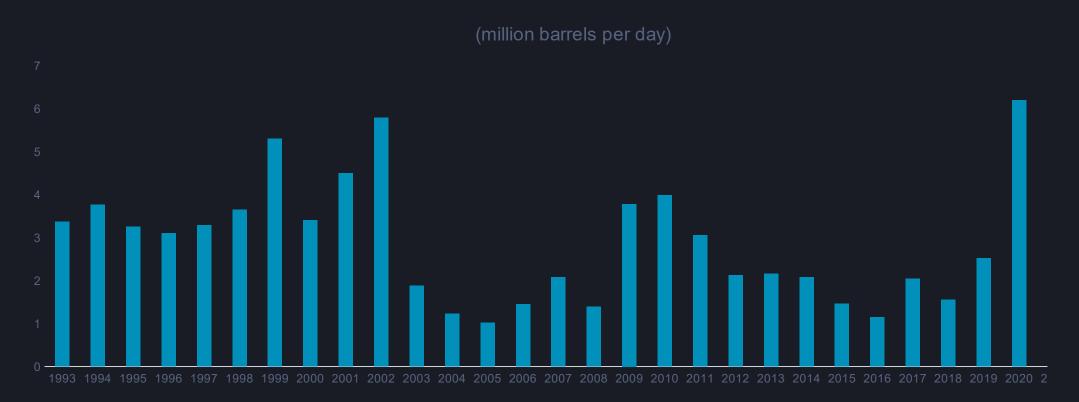
- → IEA mandates inventories
- → Has coordinated past releases
- → US crude & product SPRs
- → US commercial stocks
- → Floating storage sometimes augments onshore inventories

SPARE CAPACITY

- → Held by few OPEC producers
- → Curtailments by policy
- → Offset by unintended disruptions
- → How to characterize sanctioned oil?

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OPEC Spare Production Capacity



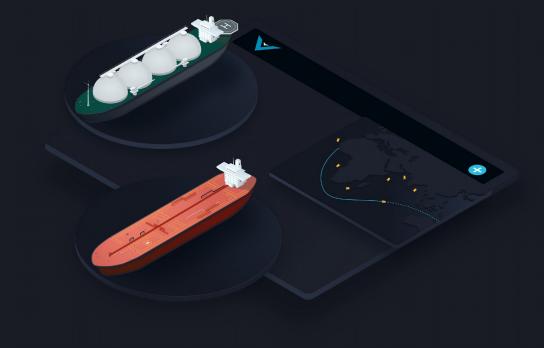
Factors to Amplify Price Effects from Future Disruptions

DECARBONIZATION

Energy companies will aggressively implement ESG strategies that increase the cost of adding new capacity, and in some cases reduce oil supplies – but oil demand will not moderate in kind. Future disruptions will thus occur amid tighter supply-demand balances.

RISK PROLIFERATION

Energy remains one of the highest-profile economic sectors vulnerable to attack. The modes of attack available to malign actors – from longer-range and accurately delivered weaponry to "digital disruptions" in the cyber sphere – are likely to increase, bringing even more potential targets into the crosshairs.



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